ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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Asbestos Siding and Roofing Removal Guidelines for Homeowners

General

Based on a number of health studies, the inhalation of asbestos fibers is known to cause several respiratory diseases and research shows that asbestos in any form may constitute a potential health hazard. When untouched, asbestos siding and roofing present a minimal health hazard because the asbestos fibers are bound in a cement type mixture. However, because inhalation is the exposure route of concern, it is important to prevent asbestos fibers from becoming airborne. The health hazard occurs when the siding or roofing is drilled, sawed, sanded, or broken and the fibers are released to the air.

The removal of siding and roofing can be legally performed by home owners, general contractors, or licensed abatement contractors as long as each does not violate the National Emissions Standards for Hazardous Air Pollutants (NESHAP) and work complies with Occupational Safety and Health Administration (OSHA) regulations delineated in 29 CFR 1926.1101. NESHAP regulations prohibit any visible emissions of asbestos fibers. As of October 1, 1995 changes in the OSHA regulations require a "competent person" to supervise all asbestos projects and a negative initial exposure assessments must be performed before employees trained in compliance with 29 CFR 1926.1101 can perform asbestos roofing and siding work. It should be noted that if the home owner has tenants then the homeowner is responsible for occupants other than the immediate family and the same regulations that apply to contractors applies to the homeowner. Asbestos projects must be performed in a manner which conforms to the New Hampshire *Solid Waste Rules.*

Before deciding to proceed with what is believed to be an asbestos removal project, be sure that the roofing or siding actually contains asbestos. This can be verified by sending a small sample for laboratory analysis. If the siding/roofing does contain asbestos, be sure to become fully appraised of regulatory requirements before beginning the work. If the material is or becomes friable, (meaning it can be crushed by hand pressure) then it can only be removed by a licensed abatement contractor or the home owner doing the work himself. It is important to note that even under the best circumstances these procedures can be physically demanding and potentially dangerous. Breathing through a respirator places an additional stress on the heart and lungs. Employers are required to have employees medically tested and approved by a doctor to use a negative pressure respirator. For individual homeowners it would be prudent to seek a medical opinion prior to wearing such equipment. Protective clothing can become hot and restrict motion, requiring added care to be taken when working on ladders and in high places. Eye protection may result in reduced visibility. Caution must be taken around live wiring and electrical power

when using the misting (water application) techniques to prevent visible emissions of asbestos fibers.

The homeowner (or contractor removing the material) is responsible for determining the condition of the asbestos material. If the asbestos siding or roofing is "non-friable" (meaning that it cannot be crushed to powder by hand pressure), the law considers it to be a solid waste which requires special handling and can be disposed of in landfill approved for that purpose with consent of the owner/operator. The asbestos wastes may not be placed in demolition landfills or "brush and stump" areas in the State of N.H.

There are strict regulations governing how asbestos is to be packaged, labeled, and transported to landfills permitted to accept asbestos (see Fact Sheet ASB-13). Arrangements for adhering to these provisions should be made prior to starting the job of removal.

In making a decision regarding the removal of asbestos roofing or siding, the homeowner should utilize the following tests to determine the associated health risks. If any part of the siding or roofing material can be crushed into powder by hand pressure, it is to be considered potentially dangerous. If no powder can be generated by hand pressure, the material is probably relatively safe. The removal procedure to be utilized is governed by the type and condition of the asbestos material. If there is any question as to the type of roofing material confirmation should be made by laboratory analysis.

The following strategy can be used as a guideline in developing a plan of action for removal and disposal of asbestos siding and roofing:

- Obtain quotes and recommendations from at least three removal contractors for removal and disposal of the siding or roofing.
- When obtaining the quotes, ask that the removal and disposal prices be listed separately in the event the homeowner wishes to do only a portion of the job himself.
- The homeowner may opt to remove the material himself, if the siding and/or roofing is in good condition. If the material is found to be friable, the homeowner may still elect to do the removal work but should exercise extreme caution to minimize exposure risks.
- Contact the permitted facility where you intend to dispose of the asbestos material. (See Fact Sheet ASB-14 which lists all facilities permitted to receive asbestos for disposal.)

Removal Procedure

The process of asbestos removal involves several steps starting with personal protection, and advancing through packaging to terminal disposal. The basic steps are as follows:

1. Protective clothing, eye protection, and respiratory protection should be used by persons involved in asbestos removal activity. If disposable clothing such as a tyvek suit is used, it should be treated as asbestos containing waste when disposed. If medically fit, at a minimum a half-face air purifying respirator approved by the National Institute for Occupational Safety and Health (NIOSH) and equipped with High Efficiency Particulate Air filter (HEPA-type) asbestos cartridges should be worn. **A dust mask does not offer adequate protection.**
2. For commercial projects the use of barrier tape is **required**. For residential work performed by homeowners, the use of barrier tape is **strongly recommended** if in a congested area with little space between houses.
3. The use of plastic barriers over windows, doors, vents, etc...., would depend on the final disposition of the structure from which the material was being removed. If the building

was inhabited, or going to be inhabited, the use of barriers might prove to be a good approach to fiber control. For an unoccupied, uninhabited structure it would not be necessary.

4. Place polyethylene on the ground surrounding the building to catch small pieces inadvertently broken off siding or shingles as they are removed. The Air Resources Division of the Department of Environmental Services recommends 10% as the maximum allowed breakage factor.
5. Start removal at the top and work down the sides of the building. In this manner, nail holes are exposed and nail heads can sometimes be pinched off to facilitate removal of shingles.
6. The removal methodology should utilize wetting techniques (misting) to minimize dust and fiber migration. This can be done effectively by adding 1 oz. of dish detergent to 1 gallon of water and applying the mix with a garden sprayer. Caution must be taken when misting in the vicinity of live electrical wiring.
7. Carefully remove the siding or roofing and gently place the material into double layered 6 mil thick polyethylene bags, or double lined cardboard drums or containers. The name of the generator and address at which the waste was generated must appear on each disposal container. See Fact Sheet ASB-13 for further information.
8. Wash off tools when the job is completed, restricting runoff to the immediate site.
9. Mist the polyethylene on the ground and carefully put it into the containers.
10. Dispose of material at a permitted landfill. **REMEMBER:** landfills approved for disposal of asbestos require 24 hours advance notice to properly handle the waste. Waste shipment records (WSR) are required by landfills and a respirator should be worn when handling asbestos waste.

The homeowner (or contractor removing the material) is responsible for safely transporting the securely packaged asbestos waste to a permitted landfill. If more than one pound of friable asbestos is spilled or leaked while being transported, the owner of the vehicle shall immediately contact the National Response Center (1-800-424-8802).

In summary, there are three major responsibilities that the homeowner accepts when doing the work himself:

1. Responsibility for the determination that the asbestos material is friable or non-friable.
2. Responsibility for the description of removal procedures, as necessary, to town authorities.
3. Responsibility for proper removal, transportation, and disposal of asbestos material.

Further Information

For additional information on the proper removal of asbestos siding and roofing, contact:

N.H. Department of Environmental Services
Waste Management Division
29 Hazen Drive
Concord, NH 03301 603-271-2925